

IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

CLAIMS

1. (Canceled)
2. (Previously Presented) A fuel-cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer, the separator comprising:
 - a separating section for achieving separation between a fuel gas channel and an oxidizer gas channel; and
 - a sealing section disposed along an outer periphery of the separator, for preventing leakage of fuel gas and oxidizer gas,
 - wherein the separating section is composed of a flat metal sheet serving as a core member, and a resin layer formed on a surface of the flat metal sheet,
 - the resin layer is provided with the channel,
 - the sealing section is composed of a metal sheet and a rubber layer formed on a surface of the metal sheet, and provided with a sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing section having a vertex which is constituted so as to be brought into pressure-contact with the electrolyte assembly under a resilient force,

the sealing projection has a U-shaped or V-shaped sectional profile when viewed in a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow, and

the sealing section is formed in a manner such that, when the fuel cell is in its yet-to-be assembled condition, the vertex of the sealing projection extends beyond a position of contact with the electrolyte assembly in contrast to a case where the fuel cell is in its assembled condition.

3. (Previously Presented) The fuel-cell separator of claim 2, wherein on a surface of the resin layer is formed a high conductive layer having higher electrical conductivity than electrical conductivity of the resin layer.

4. (Previously Presented) The fuel-cell separator of claim 3, wherein the high conductive layer is formed at least in a region of the resin layer which is in contact with the electrolyte assembly.

5. (Canceled)

6. (Previously Presented) A fuel-cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer, the separator comprising:

a separating section for achieving separation between a fuel gas channel and an oxidizer gas channel; and

a sealing section disposed along an outer periphery of the separator, for preventing leakage of fuel gas and oxidizer gas,

wherein the separating section is composed of a flat metal sheet serving as a core member, and a resin layer and a high conductive layer having higher conductivity than conductivity of the resin layer, which are formed on a surface of the flat metal sheet,

the high conductive layer is provided with the channel,

the sealing section is composed of a metal sheet and a rubber layer formed on a surface of the metal sheet, and provided with a sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing section having a vertex which is constituted so as to be brought into pressure-contact with the electrolyte assembly under a resilient force,

the sealing projection has a U-shaped or V-shaped sectional profile when viewed in a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow, and

the sealing section is formed in a manner such that, when the fuel cell is in its yet-to-be assembled condition, the vertex of the sealing projection extends beyond a position of contact with the electrolyte assembly in contrast to a case where the fuel cell is in its assembled condition.

7. (Previously Presented) The fuel-cell separator of claim 6, wherein the high conductive layer is a thin film formed of carbon, the high conductive layer being formed through spraying of a dispersion of carbon particles.

8. (Previously Presented) The fuel-cell separator of claim 1, wherein the metal sheet is covered with a covering layer.

9. (Previously Presented) The fuel-cell separator of claim 8, wherein the covering layer is formed on the metal sheet surface via an adhesive layer.

10. (Previously Presented) The fuel-cell separator of claim 9, wherein the adhesive layer is formed of triazinethiol or polyaniline diffused on the metal sheet surface.

11. (Previously Presented) The fuel-cell separator of claim 8, wherein the covering layer is formed of rubber or synthetic resin having electrical conductivity, and

wherein the electrically conductive ink contains:

a vehicle composed of thermosetting monomer or thermosetting oligomer for forming the rubber or synthetic resin; and

an electrically conductive filler composed of a metal compound or carbon-base material.

12.-32. (Canceled)